

REMARKS

Claims 1-14 are pending. In light of the amendment and following remarks, Applicants believe all the claims are in condition for allowance.

The amendment to the Specification corrects a clerical error. No new matter is introduced.

Support for the amendments to the claims is found at least on Specification page 9, lines 29-32; page 10, lines 2-6 and page 37, line 29 - page 38, line 2 as originally filed. No new matter is introduced. Acceptance is respectfully requested.

The § 102(e) Rejection of Claims 1-14

Claims 1-14 were rejected under 35 U.S.C. § 102(e) allegedly being anticipated by U.S. Patent No. 6,591,266 issued July 8, 2003 to Li et al. (hereinafter "Li"). Applicants respond as follows.

By way of background, in a typical web page delivery system, a web server generates a web page in response to a request from a web browser (or cache). In the process of generating the web page, the web server may query a database (DBMS) for data used as part of the contents of the web page and thus dynamically create the web page. This is especially advantageous for web pages that have frequently changing contents/information.

The generated web page (in addition to being delivered to the requesting web browser) may be stored in a cache for subsequent use, i.e., in response to a subsequent request. However, the data stored in the database typically changes. This causes corresponding web pages (and contents therein) stored in the cache to be out of date.

As noted by Li,

"One way to increase the probability that the Web pages in cache 36 are fresh is to periodically refresh the pages through the Web server 38. However, this may result in many unnecessary requests to the Web server 38, the application server 40, and the DBMSs 26, and even with periodic refreshing, the Web pages in cache 36 cannot be guaranteed to be fresh. Because of the difficulty in ensuring that the data stored in cache 36 is fresh, important dynamic Web pages that are stored in

cache 36 are typically set to expire immediately. Alternatively, such Web pages may be designated as non-cacheable." (Column 4, lines 34-44)

and

"Even though some dynamic Web pages may change only once every hour, the fact that it can change may be enough for businesses to make the content non-cacheable or set for expiration immediately." (Col. 4, lines 53-57)

Thus, Li criticizes and discourages the periodic refreshing of cached Web pages. Instead, Li focuses attention on synchronizing the data stored as Web pages in cache with the corresponding data stored in DBMS.

In particular, Li creates and maintains an association (or mapping) between the URL of the requested Web page and the data queries/external source operations made in generating the Web page. A content change monitoring component monitors and detects changes to data in the database (or external source). When a data change is detected, the content change monitoring component determines from the associations (mapping) which queries/operations and ultimately which Web page is affected by the changed data. See col. 8, lines 36-63.

In contrast, the present invention further refines the periodic refreshing of cached Web pages. Applicants have discovered that for dynamic Web page data that changes at either a slow or well defined rate, periodic refreshing does improve Web page delivery. That is, the periodic refreshing of such Web pages has advantages over the disadvantages noted in Li, col. 4, lines 36-38. Neither Li nor any of the prior art recognize that for this specific subset of dynamic data and corresponding Web pages, periodic refreshing is beneficial.

The foregoing patentable distinction is recited in base Claims 1, 7 and 11 as now amended with the language "...said web page including at least one dynamic element that changes at a relatively slow or well defined rate;..." Support is found at least in the Specification at page 37, lines 2-7 as originally filed. No new matter is introduced.

A prima facie case of anticipation requires, at a minimum, that the cited art teach every feature of the claims. When, as here, the reference does not teach a feature of the claim, a prima facie case of anticipation has not been established. Li has not been shown to teach executable code that is scheduled at periodic intervals and generates a quasi-static copy of a web page that has at least one dynamic element that changes at a relatively slow or well defined rate as recited

in base Claims 1, 7 and 11. Dependent Claims 2-6, 8-10 and 12-14 inherit and include similar features. Thus, all the pending claims are patentably distinct over the reference.

Withdrawal of the § 102(e) rejection of the claims is respectfully requested.

The § 103(a) Rejection of Claims 1-14

Claims 1-14 were also rejected under 35 U.S.C. § 103(a) allegedly being obvious over Li. For the following reasons, Applicants respectfully request reconsideration and withdrawal of this rejection.

As described above, Li does not imply or suggest that periodic refreshing has benefits for certain dynamic data (depending on rate of data change), but discounts periodic refreshing of cached web pages altogether. As such, Li teaches away from and cannot make obvious the present invention periodic refreshing of Web pages having dynamic data that changes at a relatively slow or well defined rate, as now claimed in base Claims 1, 7 and 11.

In order to establish a prima facie case of obviousness, the Office Action must show (1) some suggestion or motivation to modify the reference, (2) there is a reasonable expectation of success, and (3) the reference teaches or suggests all the claim limitations (see MPEP § 2143). As recited in MPEP § 2143, the teaching/suggestion and expectation of success must be found in the cited art, not Applicants' disclosure. Li has not been shown to establish a prima facie case of obviousness and therefore the § 103 rejection of the claims must not stand.

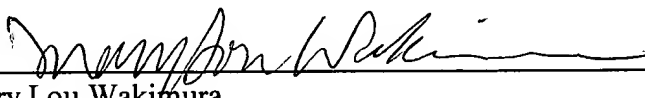
Accordingly, the present invention as claimed in Claims 1-14 are believed to be novel, nonobvious and thus patentable over the cited and prior art. Acceptance is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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